CLAIMS

What is claimed is:

1. A method for disk I/O (input output) in a computer system, comprising:

transferring a command to a disk controller, the command causing a start up of a disk drive coupled to the disk controller;

preparing disk transaction information by packaging a plurality of data structures comprising a disk transaction;

transferring the disk transaction information to the disk controller;

implementing a disk I/O, wherein the disk controller uses the disk transaction information to control the disk drive.

2. The method of Claim 1, further comprising:

preparing the disk transaction information by using a processor of the computer system; and

transferring the disk transaction information from the processor to the disk controller.

3. The method of Claim 2, further comprising:

accessing a bus coupled to the disk controller to transfer the disk transaction information from the processor to the disk controller.

4. The method of Claim 3, further comprising:

accessing a bridge component controlling the bus coupled to the disk controller and transferring the disk transaction information from the processor to the disk controller via the bridge component.

5. The method of Claim 4, wherein the bridge component is a South bridge of the computer system.

6. The method of Claim 1, wherein the transferring of the command to the disk controller causing the start up of the disk drive is configured to reduce a start up latency of the disk drive.

7. The method of Claim 1, wherein the disk transaction information includes a plurality of PRD (physical region descriptor) data structures and a plurality of CPB (command parameter block) data structures for implementing the disk transaction.

8. The method of Claim 1 wherein the disk drive is compatible with a version of the ATA standard.

9. A computer readable media having computer readable code which when executed by a processor of a computer system cause the computer system to implement a bypass method for efficient disk I/O (input output), comprising:

transferring a command to a disk controller, the command causing a start up of a disk drive coupled to the disk controller;

preparing disk transaction information by packaging a plurality of PRD (physical region descriptor) data structures and a plurality of CPB (command parameter block) data structures comprising the disk transaction;

accessing a bridge component controlling a bus coupled to the disk controller;

transferring the disk transaction information to a plurality of bypass registers of the disk controller via the bridge component;

implementing a disk I/O, wherein the disk controller processes the disk transaction information to control the disk drive.

10. The computer readable media of Claim 9, wherein the bridge component is a South bridge of the computer system.

11. The computer readable media of Claim 10, further comprising:

accessing a North bridge to transfer the disk transaction information; and

transferring the disk transaction information from the processor to the disk controller via the North bridge and the South bridge of the computer system.

12. The computer readable media of Claim 9, wherein the transferring of the command to the disk controller causing the start up of the disk drive is configured to reduce a start up latency of the disk drive.

13. The computer readable media of Claim 9 wherein the disk drive is compatible with a version of the ATA standard.

14. A computer system for implementing a bypass method for efficient disk I/O (input output), comprising:

a processor;

a system memory coupled to the processor;

a bridge component coupled to the processor; and

a disk controller coupled to the bridge component, the disk controller including a plurality of bypass registers, wherein the processor executes software code stored in the system memory, the software code causing the computer system to implement a method comprising:

transferring a command from the processor to the disk controller, the command causing a start up of a disk drive coupled to the disk controller;

preparing disk transaction information by packaging a plurality of data structures comprising the disk transaction;

transferring the disk transaction information to the bypass registers of the disk controller;

implementing a disk I/O, wherein the disk controller processes the disk transaction information to control the disk drive.

15. The system of Claim 14, further comprising:

preparing the disk transaction information by using a processor of the computer system; and

transferring the disk transaction information from the processor to the disk controller.

16. The system of Claim 14, wherein the disk controller is integrated within bridge component.

17. The system of Claim 14, wherein the bridge component is a South bridge of the computer system.

18. The system of Claim 14, wherein the transferring of the command to the disk controller causing the start up of the disk drive is configured to reduce a start up latency of the disk drive.

19. The system of Claim 14, wherein the disk transaction information includes a plurality of PRD (physical region descriptor) data structures and a plurality of CPB (command parameter block) data structures for implementing the disk transaction.

20. The system of Claim 14 wherein the disk drive is compatible with a version of the ATA standard.